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SECRET
CHIGOE

OSA-1619-66

28 March 1966

MEMORANDUM FOR THE RECORD

SUBJECT: CHIGOE Meeting at NATC, Patuxent River

1. On this date, a meeting was held with the Navy personnel at Naval Air Test Center at Patuxent River, Maryland, in reference to CHIGOE support needed by ORD. The following people attended:

Capt. Doolin, Weapon Systems Test Director at Patuxent River

Cmdr. Murphy, NATC

Lt. Cmdr. Glenn, NATC

Mr. Bennett, REWSON

Cmdr. Warren, Office of Logistics

(b)(3) [redacted], ORD

Lt. Col. Seward, OSA

[redacted], OSA (b)(3)

2. [redacted] started the morning session with a brief description of the CHIGOE Program which he emphasized will be a proof-of-concept of a multi-sensor array in a low-altitude aircraft. He stated that this proof-of-concept phase is called CHIGOE I and the objective is to produce a working model of this sensor array and aircraft and then to make the technology available to the Department of Defense, and in this specific case, to the Navy. (b)(3)

3. [redacted] outlined several of the security questions, among which is the division of security responsibility for the CHIGOE I airplane. The basic question is, Who provides physical security when the aircraft is away from the contractor, LTV?" [redacted] also described the special security clearance requirements and procedures required for our special projects. (b)(3) (b)(3)

4. [redacted] then proceeded with a brief description of the CHIGOE Project with particular emphasis on the sensor array: (b)(3)

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a. The forward looking infrared system was described as the major real-time detection device on the aircraft.

b. The low-light television display was described as being an aid to the pilot as well as a detection device.

c. The APQ-110 radar set, which is the same radar used by the F-111, is intended primarily as a terrain-following radar system for use by the pilot. It has only a limited mapping capability. This will be a non-automatic system for terrain avoidance in that the radar will not be automatically linked to the autopilot.

d. The infrared stereo scanner is the principal hard copy intelligence gathering medium on the aircraft. This was emphasized as the main item of use for Agency purposes.

e. The panoramic camera and the color framing camera were briefly described. There is no new technology involved in these.

f. The navigation system consists of three separate systems: doppler, forward-looking IR and LORAN, all coupled to two verdan computers. The advantage of this system is that the computers will evaluate and use the best and most accurate navigation information from any one or all of the three named systems in order to read out a position once per second. The read out is a digital presentation which is to be supplied not only to the flight crew but to the data blocks on the hard copy film.

g. The Inertial Navigation System will be the Litton LN-15 which is reputed to have a one-mile-per-hour accuracy. This equipment is not yet in production but it is scheduled to be by the time it could be installed in the SP2H aircraft.

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h. The level bombing system will be tied to both the low-light television and the forward-looking infrared system and will provide for automatic release of ordnance (bombs or rockets) without additional computation by any of the flight crew.

i. There may be another IR system in the left wing tip pod to provide an infrared homing system for the wing mounted rockets.

[redacted] (b)(1) (b)(3) 10 USC 130

6. The first flight of the CHIGOE aircraft is now planned for sometime in July 1966. The LTV tests in the U.S. are to be completed by December 1966 and then the overseas test will begin in January 1967. The overseas test area will be in the ARPA site in Thailand. Additional flights will probably be flown over Laos. For this reason [redacted] desires to have Navy crews fly the overseas flight test. (b)(3)

7. The afternoon meeting covered the following subjects:

a. Schedule

b. Personnel in training

c. Money

d. Spares and supplies support and priority

e. Security

f. Communications

g. Command and responsibilities

8. If the first flight is to be completed in July of 1966, [redacted] will need a Navy flight crew at LTV in early June of 1966 with a committment to this program for at least one year. It is essential to maintain crew integrity through (b)(3)

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the entire test period. For this test period it is planned to assign the SP2H to some squadron in Southeast Asia for support, housekeeping, etc. The detachment which will move overseas as a unit should be formed up at least in substance by June 1966. This will include the six to eight flight crew members plus the twenty to twenty-two persons on the ground crew. In addition, he will need a system program officer to work closely with [redacted] and represent the Navy in this enterprise. The flight crew will consist of the following persons: (b)(3)

a. Pilot/plane commander

b. Co-pilot

c. Observer/navigator

d. Observer/evaluator

e. Observer/co-pilot

f. Radio operator

g. Camera operator

h. Plane captain

9. Continuing on with the subject of money, [redacted] again stated that he has money obligated and assigned for this project. The Navy will absorb the expense for POL products with their BRAVO funds allocation to Patuxent River Naval Air Station. REWSON, after ORD gives them the money, will assign weapons task funds to Patuxent River for aircraft and personnel support. To my knowledge this will amount to about $300,000 for one year of operation. Initially Mr. Bennett from REWSON will put $50,000 at Patuxent River for them to use as needed to support the CHIGOE aircraft. Mr. Bennett said that he will send a weapons task (WEPTASK) and "a slug of money" authorization to Patuxent River for support of this project. Capt. Doolin will administer this money at that station. (b)(3)

10. ORD will need ordnance support from Patuxent River for the target marking materiel to be used in the test area overseas. He recommended that Patuxent River have NOTS at China Lake load the ordnance in bombs and rockets as a Patuxent River task. The money quoted above may be used for this purpose. [redacted] also noted that we will need overhauled engines before the aircraft move overseas and Capt. (b)(3)

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Doolin suggested that they could take care of this in his normal aircraft support procedures. What probably will happen is that overhauled engines will be sent to LTV to be installed in the aircraft before the SP2H moves overseas, the old engines being returned to Patuxent River for overhaul. The supply priority for this aircraft will be outlined and authorized on the WEPTASK to be written by the REWSON office here at Main Navy.

11. Since the SP2H aircraft and the Navy personnel to support it and fly it will be assigned to Patuxent River, there is serious question as to whether or not the Agency should have any part in security control of this project. The real underlying need for security cognizance of project CHIGOE is to protect the Agency involvement and additionally to protect OSA's involvement in this and in other similar types of endeavors. It is now proposed that OSA Security control the security aspects of CHIGOE while the aircraft is at LTV. Once it leaves LTV, security responsibility and control should revert to the Navy with perhaps some procedural and requirements assistance from the program manager. It is here inferred that the program manager would necessarily have to seek security guidance from someone else; either OSA or Central Security. As this program continues, there seems to be less and less valid reason for OSA to control security of this program. The follow-on system is another matter.

12. Capt. Doolin agreed that he could provide space and personnel to man the communications terminal which was recommended at the early March meeting at Main Navy. This communications circuit is to link Headquarters with Main Navy (REWSON) and Patuxent River. Capt. Doolin was advised that this would be a TWX call-up service and not on-line service. The means of establishing this communications circuit remains to be solved and will require a meeting with Mr. Bennett of the REWSON office with OSA personnel. Some additional definition of exact communication requirements is necessary from D/SA.

13. The question of command responsibility on the overseas deployment as a Navy unit was discussed at some length. The Navy suggests and the group in general agreed that a CTF-77 or CNO representative would be required on-site wherever the SP2H goes overseas. In this way the authority for operating in the theater would emanate from CNO to the man on the site. In the case of Southeast Asia operations this man is an essential ingredient in the coordination process. As for arrangements which will be required prior to the overseas deployment it is the opinion of the OSA

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representatives at this meeting that OSA is not necessarily the proper office to request and arrange such coordination. As an overt Navy deployment it seems only logical that prior arrangements for the use of an operation of a Navy aircraft in, for example Thailand, be initiated and coordinated through Navy channels. Since Dr. Brewer will be establishing most if not all of the requirements of the overseas test and, in fact, supervising the overseas test, it is logical that he should have the REWSON office initiate and confirm arrangements to deploy the aircraft to Southeast Asia and to operate it there in Thailand and Laos.

14. Since there were so many unresolved questions not necessarily on the part of the Navy but on the part of the OSA representatives, a meeting of Dr. Brewer and appropriate OSA personnel is in order. This meeting is scheduled for 30 March 1966.

[redacted] (b)(3)

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AUTHORIZED FOR RELEASE:

[redacted] (b)(3)

Chief, Programs Staff, OSA

4/3/66
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